

AMENDMENTS TO THE CLAIMS

1-7. (Canceled)

8. (Previously Presented) A biocompatible polymer composite for use in thermally-related medical therapies, the composite comprising a base polymer component and a dispersed filler component, the filler component having a thermal conductivity of less than 5 W/m-K, further comprising a ferromagnetic filler component dispersed in the base polymer.

9. (Currently amended) A biocompatible polymer composite ~~as in claim 1~~ for use in thermally-related medical therapies, the composite comprising a base polymer component and a dispersed filler component, the filler component having a thermal conductivity of less than 5 W/m-K, further comprising a chromophore filler component dispersed in the base polymer.

10. (Currently amended) A biocompatible polymer composite ~~as in claim 1~~ for use in thermally-related medical therapies, the composite comprising a base polymer component and a dispersed filler component, the filler component having a thermal conductivity of less than 5 W/m-K, further comprising a light reflecting filler component dispersed in the base polymer.

Claims 11-12 Canceled

13. (Currently amended) A biocompatible polymer composite ~~as in claim 1~~ for use in thermally-related medical therapies, the composite comprising a base polymer component and a dispersed filler component, the filler component having a thermal conductivity of less than 5 W/m-K, wherein the composite is formed into a gel.

14. (Previously presented) A biocompatible polymer composite for use in thermally-related medical therapies, the composite comprising a base polymer component and a dispersed filler component, the filler component having a thermal conductivity of less than 5 W/m-K, wherein the composite is formed into a filament.

15. (Previously presented) A biocompatible polymer composite for use in thermally-related medical therapies, the composite comprising a base polymer component and a dispersed filler component, the filler component having a thermal conductivity of less than 5 W/m-K, wherein the composite is formed into microshells having hollow cores.

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16. (Original) A biocompatible polymer composite as in claim 15 wherein the microshell cores are filled with a gas.

17. (Original) A biocompatible polymer composite as in claim 15 wherein the microshell cores are filled with CO₂.

18. (Original) A biocompatible polymer composite as in claim 15 wherein the microshell cores are filled with first and second cooperating polymerizable components.

19. (Original) A biocompatible polymer composite as in claim 15 wherein the microshell cores are filled with a drug.

20. (Canceled)

21. (Previously presented) A method of making a biocompatible polymer composite for use in thermally-related medical therapies, the method comprising the steps of:

providing a biocompatible base polymer;

providing a biocompatible dispersable filler material that has a thermal conductivity of less than about 5 W/m-K;

mixing the filler component in the base polymer when in a melt state; and

mixing an electrically conductive filler into the base polymer.

22. (Canceled)

23. (Original) A method of making a biocompatible polymer composite as in claim 21 further comprising the step of mixing an anti-oxidation agent into the base polymer.

24. (Original) A method of making a biocompatible polymer composite as in claim 21 wherein the mixing step includes mixing the filler component in the base polymer in an inert gas atmosphere for extending the mixing time and limiting oxidation reactions of the filler component and base polymer.

25. (Original) A method of making a biocompatible polymer composite as in claim 21 wherein the mixing step includes mixing the filler component in the base polymer in a gas atmosphere that is free of oxygen.

26. (Original) A method of making a biocompatible polymer composite as in claim 21 wherein the mixing step includes mixing the filler component in the base polymer in an inert gas atmosphere that is heavier than air.

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27. (Original) A method of making a biocompatible polymer composite as in claim 21 further comprising the step of applying cross-linking means to the base polymer comprising at least one of chemical cross-linking and cross-linking by irradiation.

28. (Previously presented) A method of making a biocompatible polymer composite as in claim 27 wherein the cross-linking irradiation is at least one of gamma, UV and E-beam irradiation.

29-35. (Canceled)